

**Notice of Allowability**

Application No.

10/047,898

Examiner

V. Paul Harper

Applicant(s)

FENG ET AL.

Art Unit

2654

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/15/2002.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ The drawings filed on 15 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **EXAMINER'S AMENDMENT / REASONS FOR ALLOWANCE**

### **Examiner's Amendment**

1. An examiner's amendment to a record appears below. Should a changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than a payment of an issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Frank Nicholas on 8/08/2005.

#### **(beginning of amendment)**

In claim 10, change "A system of claim 6," to --A system of claim 9,--.

In claim 13, add a period to the end of the claim.

#### **(end of amendment)**

### ***Reasons for Allowance***

2. Claims 1-17 are allowed.

It is noted that a closest prior art of record, Eberman et al. (US Patent 5,924,065), discloses an environmentally compensated speech processing system, but Eberman et al. does not teach:

(in claims 1, 3, 9, and 11) determining spectral information indicative of an encoded difference in a voice pattern between a speech signal and one or more keywords when speech is acceptable or a distance is less than an established threshold, and generating a voice pattern as a function of the spectral information; or

(in claims 5) determining spectral information indicative of an encoded difference in a voice pattern between a speech signal and one or more keywords; transforming the spectral information into a continuous frequency spectrum indicative of an encoded difference in a voice pattern between a speech signal and a one or more keywords; and operating a voice pattern filter on the basis of a continuous frequency spectrum; or

(in claim 7) operating a voice pattern filter on a basis of a continuous frequency spectrum indicative of an encoded difference in a voice pattern between a speech signal and one or more keywords; and filtering a speech signal sequentially through a voice pattern filter and an automated speech recognition filtering device to a automated speech recognition platform to facilitate an optimal performance of an automated speech recognition platform; or

(in claim 8) transmitting a data packet from a client side to a server side when a speech signal is determined to be acceptable, the data packet including spectral information indicative of an encoded difference in a voice pattern between a speech signal and a one or more keywords; transforming spectral information into a continuous frequency spectrum indicative of an encoded difference in a voice pattern between a speech signal and a one or more keywords; operating a voice pattern filter on a server side on the basis of a continuous frequency spectrum; or

(in claim 13) a module operable to determine spectral information indicative of an encoded difference in a voice pattern between a speech signal and one or more keywords; and a voice pattern filter generated as a function of a transformation of

Art Unit: 2654

spectral information into a continuous frequency spectrum indicative of an encoded difference in a voice pattern between a speech signal and a one or more keywords; or

(in claim 15) a voice pattern filter operable on a basis of a continuous frequency spectrum indicative of an encoded difference in a voice pattern between a speech signal and one or more keywords; or

(in claim 16) a module operable to transmit a data packet from a client side to a server side when a speech signal is determined to be acceptable, the data packet including spectral information indicative of an encoded difference in a voice pattern between a speech signal and a one or more keywords; a voice pattern filter operable on a basis of a transformation of spectral information into a continuous frequency spectrum indicative of a encoded difference in a voice pattern between a speech signal and a one or more keywords.

Thus, independent claims 1, 3, 5, 7, 8, 9, 11, 13, 15 and 16 are allowable over a prior art of record because a cited prior art alone or in combination, does not fairly suggest or disclose a claimed combination of features.

Any comments considered necessary by applicant must be submitted no later than a payment of an issue fee and, to avoid processing delays, should preferably accompany an issue fee. Such submissions should be clearly labeled "Comments on Statement for Reasons of Allowance."

***Citation of Pertinent Art***

3. A following prior art made of record but not relied upon is considered pertinent to a applicant's disclosure:

- Bardaud et al. (U.S. Patent 6,006,180) disclose a method for recognizing deformed speech.
- Brems et al. (U.S. Patent 5,566,272) disclose automatic speech recognition using confidence measures.
- Eberman et al. (U.S. Patent 5,924,065) disclose environmentally compensated speech processing.
- Epstein (U.S. Patent 5,465,317) discloses a speech recognition system with improved rejection of words and sounds not in a system vocabulary.

***Conclusion***

Any inquiry concerning this communication or earlier communications from a examiner should be directed to V. Paul Harper whose telephone number is (571) 272-7605. A examiner can normally be reached on M-F.

If attempts to reach an examiner by telephone are unsuccessful, an examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. A fax phone number for an organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2654

Information regarding a status of an application may be obtained from a Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from eiar Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about a PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to a Private PAIR system, contact an Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/08/2005

V. Paul Harper  
Patent Examiner  
Art Unit 2654



**RICHEMOND DORVIL**  
**SUPERVISORY PATENT EXAMINER**